

Efficiency of the enteral administration of fibbers in the treatment of chronic obstipation

Sofia Gomes ¹, Fernando Moreira ^{1,2}, Cláudia Pinho ^{1,3}, Rita Oliveira ^{1,3,4}, Ana I. Oliveira ^{1,3}

1 Escola Superior de Tecnologia da Saúde do Porto, Instituto Politécnico do Porto, Vila Nova de Gaia, 4400-330, Portugal;

2 Department of Legal Medicine and Forensic Sciences, Faculty of Medicine, University of Porto, 4200-319 Porto, Portugal & Pharmaceutical Services, Centro Hospitalar de Vila Nova de Gaia/Espinho, EPE, Vila Nova de Gaia, 4400-129, Portugal;

3 Núcleo de Investigação e Intervenção em Farmácia, Centro de Investigação em Saúde e Ambiente, Instituto Politécnico do Porto, Vila Nova de Gaia, 4400-330, Portugal;

4 Secção Autónoma de Ciências da Saúde, Universidade de Aveiro, 3810-193 Aveiro, Portugal

Correspondence: Sofia Gomes (sofiasilvagomes93@gmail.com) – Escola Superior de Tecnologia da Saúde do Porto, Instituto Politécnico do Porto, Vila Nova de Gaia, 4400-330, Portugal

It is estimated that constipation affects 20 % of the population in western countries, leading to a significant impact on people's quality of life. The administration of some types of fibres has significantly improved the symptoms of constipation over 4-week periods of administration, apparently increasing the frequency of defecation and having a protective effect on the intestinal flora. In addition to their effect on this pathology, fibres have been linked to beneficial outcomes in cardiovascular diseases, diabetes, obesity, colorectal cancer and haemorrhoids. This study focuses on the short-term evaluation of the benefits of fibres on intestinal motility in constipated patients.

A quasi-experimental pilot study was performed, consisting of the administration of 6.3 g of a blend supplement of six soluble and insoluble fibres (containing soy polysaccharide, cellulose, resistant starch, gum arabic, oligofructose and inulin) both at lunch and dinner, for 15 days. The sample included 5 patients diagnosed with chronic constipation who frequently use laxatives, aged between 50 and 83, and who did not require a restricted-

fibre diet. Participants obtained stools of type 3 and 4, according to the Bristol stool form scale. The average daily bowel evacuations decreased and all participants ended up taking laxatives after a short initial stop. The supplementation with the fibre-enriched product did not cause any adverse symptoms. According to this study, the supplementation of chronically constipated patients with fibres is ineffective in the reduction of obstipation, over a short-term period of 15 days. Besides, the dependence generated by the use of laxatives is clearly demonstrated.

Keywords Supplement, inulin, oligosaccharides, bowel, prebiotics